

# History of Psychology

## **PSYCHOLOGICAL MEASUREMENT IN BRAZIL IN THE 1920s AND 1930s**

Ana MariaJacó-Vilela

Online First Publication, May 5, 2014. <http://dx.doi.org/10.1037/a0035333>

### CITATION

Jacó-Vilela, A. M. (2014, May 5). PSYCHOLOGICAL MEASUREMENT IN BRAZIL IN THE 1920s  
AND 1930s. *History of Psychology*. Advance online publication.

<http://dx.doi.org/10.1037/a0035333>

# PSYCHOLOGICAL MEASUREMENT IN BRAZIL IN THE 1920s AND 1930s

Ana Maria Jacó-Vilela  
State University of Rio de Janeiro

This article deals with the initial applications of psychological tests in Brazil during the 1920s and 1930s, and it is focused on their use in education under the influence of the New School and the Mental Hygiene movements. Thus, the objective is to highlight the implication of psychology as a “social science” (Rose, 1996), a support to the legitimacy of racial theories in force during that period.

*Keywords:* psychological test, Brazil, Mental Hygiene, Education, racial theories

Brazil entered the European universe in 1500, when the first Portuguese ships arrived at what today is Brazilian territory (Fausto, 1995). From then on, colonization left deep marks in the Brazilian way of living and thinking. Indians’ knowledge about the flora and its medicinal effects was common and was added to the knowledge brought by Africans (Bastide, 1974; Câmara Cascudo, 1972; Guimarães, 1981; Orico, 1975; Villas Boas & Villas Boas, 1975). The Jesuits developed a “child psychology,” mainly focused on catechesis (Massimi, 1990; Massimi, 2006; Oliveira, 2008). However, the colonized spirit did not consider such productions relevant because they did not match the European products. That would be the trend to be followed by science in the 19th century, a period of great change in the country.

The production and dissemination of scientific knowledge was quite limited until the early years of the 19th century. It depended chiefly on the importation of foreign work and brief internships in the European territory, mainly in France, taken by those interested in psychological topics. The elites were satisfied with Brazil’s role as an exporter of agricultural and mineral products and an importer of ideas. The country was receptive to all kind of ideas, theories, and manufacturing methods developed elsewhere. At the same time, republicanism

spread in Brazil since the second half of the 19th century (Fausto, 1995). It was up to the intellectuals engaged in the republican cause to reform the State to meet the challenges of leading an economically and culturally backward nation toward a model of a civilized European nation.

This brief historical contextualization is important because it points out the specificity of the Brazilian case. To analyze the entrance and dissemination of psychological measurement in Brazil, we will emphasize the social conditions articulated to its admission, able to influence its growth, as well as the selection and rejection of some of its assumptions. By doing so, we intend to break the boundaries of a history of ideas and practices established from an inward view of science and consider the scientific interaction with society. To achieve that goal, we have undertaken the task of investigating the processes of acceptance and dissemination, in addition to the struggles that take place in the field of psychological measurement in contrast to other knowledge branches, as well as its complex relations with the Brazilian social structure.

This choice was made because we do not believe that the intellectual field is completely autonomous in relation to society, but rather the opposite: local problems impose questions to scientists, and they seek to address them through new scientific tools stemming from the scientific field (Alonso, 2002). This does not mean that there was no autonomy in psychological knowledge implemented here. After all, for the development of scientific life, beyond its

Correspondence concerning this article should be addressed to Ana Maria Jacó-Vilela, Rua Dona Mariana, 72/508, Rio de Janeiro, Brazil. E-mail: amjaco@uol.com.br

practices, one should consider the role of science from a conceptual point of view, as well as its ability to create principles often conflicting against values present in those spatial and temporal contexts in which it attempted to get established (Schwarz, 1977/2000).

Following that line of ideas, with the creation of the first university courses in the 19th century, it is worth remarking that the comparison because the Portuguese colonization was different from the Spanish colonization: in other Latin American countries, universities had already been created in the 16th or 17th centuries—a great effort was being made to reproduce the ideas and practices developed in the center in the most “correct” way, thus seeking to become a “civilized” nation. Psychology was also part of the “group of new ideas” that arrived to Brazil, together with materialism, positivism, evolutionism, and the notions of progress and science (Romero, 1900/1926). Such new ideas, however, arrived in a diverse context, and they were appropriated here in a different way. Therefore, they got transformed into other ideas and practices (Schwarz, 1977/2000).

Those developments contributed during the proclamation of the Republic in 1889 (only a year after the abolition of slavery) to the emergence of a contradictory social imaginary, a proof of the fact that the hegemony of the discourse is based less on logical coherence than on the material and symbolic force achieved by its utterance: the idea of a contractual society composed of free citizens, equal and fraternal, while, at the same time, agreements are based on hierarchical, and especially racial, difference (Russo, 1997). There have been multiple explanations for racism in the Brazilian society to this day. During the focused period (late 19th century, early 20th century), the authors (Azevedo, 1987; Magnoli, 2009) agree that the explanations about the society underwent a great change. The interests put aside the divisions between Whites and slaves, or free people and slaves, without reference to color, and when appropriate, they consider justifications for slavery based on the Christian view of salvation of the Negroes’ souls and assume a biological trend, based on the concept of race. In the 1872 census, the notion of race appears consolidated, which leads the freed Negroes to fear for their reversion to captivity (Lima, 2003).

Several complementary theories were used to justify racism scientifically, such as social Dar-

winism—whose great promoter in Brazil was Count de Gobineau (Raeders, 1996)—phrenology, Lombroso’s criminal anthropology, Morel’s theory of degeneration (Serpa Jr, 1998). One of the great Brazilian authors to study Negroes, their rites and customs in loco, would be Raimundo Nina Rodrigues, whose main work is *The Fetish-like Animism of Baiano Negroes*, from 1896 (Rodrigues, 2006/1896). This perspective is conventionally named “scientific racism” to be contrasted with previous and subsequent forms of establishing relations with the Negroes in Brazil.

The preponderance of Black individuals in the population was considered the biggest obstacle for the country to reach the standard of civilized European nations. Pure Black and White “blood” was considered hierarchically different, but when White blood was considered to have been “contaminated” by the Black, the “mestizo” implies physical, intellectual, and moral inferiority transmitted to the offspring and producing a continuous line of degradation (Schwarz, 1993).

The transformation of biological difference in justification to social inequality led to the conclusion that with the kind of population that inhabited Brazil, the goal of building a civilized nation in the European manner was virtually impossible. This was a position advocated by several authors toward the end of the 19th and early 20th centuries, as demonstrated by the analyses carried out by Leite (1976), as also presented in books organized by Botelho and Szwarcz (2010) and Mota (1999). One exception was Manoel Bomfim, who attributes the differences between Latin American and European countries to the form of colonization performed (Bomfim, 1993).<sup>1</sup>

From this point of view, the reduction and/or elimination of illiteracy was considered the only

<sup>1</sup> Manoel Bomfim (1868–1932), graduated in Medicine and focused his work on education because, like most thinkers of his days, he attributed to his faith in scientific knowledge the role of a privileged tool to intervene in reality and progress. So, his analyses concerning several fields, such as history, pedagogy, and psychology, aimed at elaborating general guidelines for Brazilian national development. He was the director of *Pedagogium*, invited by Medeiros e Albuquerque. Bomfim created the first Brazilian experimental psychological laboratory on this Museum. He was professor of Psychology at the Teachers’ School of Rio de Janeiro (the so-called Normal School). He was one of the founders of the Brazilian League of Mental Hygiene, the Brazilian Association of Educators, and the People’s University (*Universidade popular*), which acted for a short period of the decade of the 1920s (Aguar, 2000).

way to counteract the effects of biological difference. It is estimated that around 65% of the Brazilian population was illiterate in the early 20th century, very different from the Argentine situation in the same period (Fausto & Devoto, 2004).

The political and intellectual elite tried to improve education. The educational system was perceived as deficient, which meant it was archaic, artificial, and exaggeratedly based on memorization and physical punishment (Gondra, 2004).

It is important to note that psychology in Brazil, as one knows and practices, is developed by doctors, lawyers, philosophers, and, as of the 1910 decade, also by undergraduates from educational institutions.<sup>2</sup> Only at the end of the 1940s we identify people who, either self-taught or having studied in specialized courses, will call themselves psychologists (and be recognized as such).

### The Brazilian Mental Hygiene League

The Brazilian Mental Hygiene League appeared in the 1920s, a decade of political and cultural effervescence in Brazil. In contrast to the beginning of the 20th century, when the Republic was embryonic, in the 1920s the atmosphere was impregnated by criticism against the existing oligarchic republican model. There were revolts, cultural reform movements, such as the modernist movement in the arts and the founding of the Communist Party of Brazil

(1922). There was also a crisis in the coffee industry, a moment of economic difficulties for Brazil. At this point, the Catholic Church reorganized itself and united its intellectuals around the Dom Vital Center in 1922 to confront materialism and society's growing laicization.

In this context, the Brazilian Mental Hygiene League (LBHM) was founded in 1923 by Gustavo Riedel, then director of the Psychopath Colony of Engenho de Dentro and a great enthusiast of hygienism, a movement he got to know during his trips to United States. In the same year the Chamber of Deputies elected the League as an entity that rendered public service. As a consequence, the following year it began receiving financial assistance from the government. It united professionals from different fields, mainly members of the educated elite of

the time, like physicians, jurists, educators, and journalists.

In 1925, the League began the publication of the *Brazilian Mental Hygiene Archives*, the official journal and dissemination vehicle of hygienist ideology. Our research on psychological tests in the League was carried out by selecting articles published in this entity's journal, found in the National Library and in the National Academy of Medicine collections. The survey was carried out in every issue published from 1925 to 1935.

The authors of the first historiographic texts dealing with psychology in Brazil rarely mention the strong presence of psychology in the League. Olinto (1944/2004) and Lourenço Filho (1955/2004) are exceptions. Nevertheless, both authors merely remark this fact incidentally, without any further analysis.<sup>3</sup>

The ignorance of the close relationship between psychology and hygienism can be interpreted as having been considered a shameful episode in the history of psychology. However, the hygienist movement appeared with a progressive, missionary intention, aiming at an improvement of the living conditions for the poorest sectors of the population. It seems, therefore, after our analysis of the life history and commitment of many of the participants of the League, like Manoel Bomfim and Ulisses Pernambucano, that at that time it was almost impossible to separate hygienic thinking and psychology.<sup>4</sup> This is different from the 1930s, when the League turned toward eugenics. Many

<sup>2</sup> This type of institution is called "Normal School," and its mission was to train teachers for basic education. In this text, we referred to it as Teacher's School.

<sup>3</sup> Maria Lucia Boarini has rescued this relationship. On this issue, see Boarini, 2003, 2012; Boarini & Borges, 2009.

<sup>4</sup> Ulisses Pernambucano (1892–1943) was a physician and social reformer of a similar kind as Anísio Teixeira (see footnote 7). He was the Director of the Teacher's School of the State of Pernambuco in the northeast of Brazil. Because of his excellent performance in the Teacher's School and political contacts, Pernambucano was able to create an Institute of Psychology in 1925. It was annexed to the Department of Health and Welfare of the State of Pernambuco, and in 1929 it became the Institute of Professional Selection and Orientation of the Department of Education.

In 1930, he took office as director of the Tamarineira Asylum, and his mission was to reform its operation, reason why he is regarded as a "precursor" of the Psychiatric Reform that occurred in Brazil in 1980s. He left office in 1935, when he was arrested, accused of being a communist. Banned from the public office, he founded a private sanatorium that provided his support until his death.

personalities, like the two mentioned above, left the LBHM at that occasion.

In our investigation, we see that in the first issue of the *Archives*, there is only one article written by a psychologist, entitled “Children’s mental hygiene, based on the laws of psychology” by Radecki (1925). He is the Chief of the Psychology Laboratory of the Psychopath Colony. He was the only one among those interested in Psychology at that time in Brazil that had a formal education in this new field of knowledge, because he had studied in Warsaw and Geneva. In general, other Brazilians were either self-taught or, at the most, had taken advantage of short training courses in European psychology centers. Gustavo Riedel had hired Radecki to set up and manage the Laboratory of Experimental Psychology at the Psychopath Colony in Engenho de Dentro, a position he held from 1923 to 1933 (Centofanti, 1982). The relevance of the hygienism in relation to psychology explains why Radecki had been hired by the Psychopath Colony and why he wrote in the first issue of the *Archives*.

In addition to ignoring the importance of the League in its relation with psychology, we consider that not to recognize the systematic use of tests, the main instrument of psychological practice, began with the League is a serious mistake.

This is not surprising because testing seem to correspond quite well to League’s main objective: prevention. To know the human potential and possible “abnormalities” was argued to be necessary to prevent maladjustments, crime, and madness. The articles published in the *Brazilian Mental Hygiene Archives* achieved an even greater objective: to clarify the need to recognize, in form of diagnosis, the possible abnormalities, thus favoring a hygienic culture in Brazil, as Carvalho (1999) has pointed out.

Some texts are studies of tests seeking Brazilian standardization, such as those by Frossard (1930) and Lopes (1931). The method was especially appreciated because it was thought of predicting ability of a student’s intellectual skills. That was “natural” in those days when there was strong belief in the fundaments, meth-

odological measurement topics, we came across three articles by Maria Brasília Leme Lopes.<sup>5</sup> Those articles attracted out attention not only for their content, our objective, but also for the fact that the author was a woman and an unknown name in the history of psychology in Brazil. So, we shall examine those texts more closely.

*Sugestões para o Emprego dos Tests* (Suggestions for the Application of Tests), coauthored by Idalina Abreu Fialho, pointed to the difference between psychological and pedagogical testing and highlighted the importance of *étallonnage* (Leme Lopes; Fialho, 1929); that is, the validation of tests. There is a reference to the Educational Reform held by Fernando de Azevedo (1927–1930), and it highlighted the importance of application of tests in schools so as to adapt the new practices to the precepts of the New School, particularly to the scientific and experimental pedagogy. The tests referred to in the article were both psychological tests and pedagogical tests; the former were directed “to research the processes related to the psychic life” and the latter “to the assessment of knowledge” (Leme Lopes; Fialho, 1929, p. 69). The psychological tests addressed were “tests of intellectual level” (p. 69) to be used to create homogeneous classes, under the argument that you cannot teach the same knowledge, follow the same course of study among students who have diverse mental capacity because “the interests of different mental level students will have neither the same goal nor the same range” (p. 70). Having emphasized that assumption, the importance of the division of classes should be guaranteed by the State and applied correctly. The least “hard” suggestion was to achieve that result was to nationalize the intelligence scales already used in other countries. But, it was not enough to translate them; they also had to be strictly classified according to *étallonnages* that matched them “according to the Brazilian intelligence” (p. 70). It is worth remarking the statement according to which until that moment (year of 1929) there were several translations of

ods and results of science if adequately followed.

During the survey process of the publication issues of the journal *Brazilian Mental Hygiene Archives*, looking up articles that involved psy-

<sup>5</sup> Maria Brasília Lemes Lopes (1909 –1996) appears in the writings of the League as a “Normalist Professor,” pointing out the importance of the new Teacher’s School. Leme Lopes’ first article, written in 1929 and coauthored by Idalina Abreu Fialho, is currently the first female work published in Psychology known in Brazil.



the scales, but no form of the *étallonnage*, which hindered the effective use of such tools. The authors report that “great effort has been devoted” (p. 72) to pedagogical tests. However, once again they highlighted the problem of misuse of tests, focusing on how important it was to validate the questions used so as to establish an objective and statistically accurate measure. The article concludes by arguing that “the General Board of Education should urgently appoint a commission of several individuals who would produce a plan of action, both in the field of mental tests and in the field of teaching to be applied through the Federal District [since] testing is a process of standardization in space and time” (p. 76).

The second article, dated 1930, entitled “Pesquisas sobre a memória de fixação” (Research on memory fixation) reports the results of an experiment carried out in 1926, when “three tests of immediate memory” were applied “to about 400 people, mostly elementary school-children” (Leme Lopes, 1930, p. 235). This article deserves special attention because it was the “first experimental work at the psychology laboratory at the Brazilian League of Mental Hygiene” (p. 236), and the students tested were from municipal schools Pedro II, Deodoro, and girl students from the School of Nursing Alfredo Pinto (p. 236). Among the acknowledgment notes at the beginning of that article, it is worth highlighting the greeting to Idalina de Abreu Fialho, who carried out “the final choice of the results to be considered (. . .)” (p. 237). The selection criteria for the results, from what was said later, referred to the counting of those not obtained from children who did not fully understand the purpose of the test or communicated or looked at other children’s papers during the application. The three tests were applied were: 15-word test (listening presentation by Claparède), following by 15-word test (visual display), and later 15 pictures. Visual display was as follows: each word or picture was uttered every 2 s or visually presented for 2 s, and after the end of this action there was a 10-s lapse until the retained memory was assessed. That was when the examinees should register on paper every word or pictures they remembered. Considering that memory has different types and stages, Leme Lopes understood that she evaluated only the first phase, related to the fixation, and the individual results were not

conclusive and could only yield an average global evaluation. Thus, she carried out statistical distribution of results by taking into account such variables as age and gender, and comparing them with the results obtained in test applications in other countries.

The third article, dated 1932, was entitled *A Atenção Concentrada Explorada pelo Test de Cancellamento* (Concentrated Attention explored by the Cancellation Test) studies “one of the most interesting aspects of mental functioning” (Leme Lopes, 1932, p. 41), according to the author: attention focused on a single object. Aiming at this purpose, she applies the version of the test based on Toulouse and Piéron’s work. It consisted of a frame with 1,600 distinct signs distributed in 40 lines with eight different signs repeated five times in each line. At the time of the test application it was recorded on a sheet: the time taken to run throughout the page that contained the signs, the time taken for each five-line group, the number of mistakes, data about the examinee’s behavior and about the test application conditions, as well as general information such as name, date, time and so forth (p. 42). The test was applied in 76 people (37 men and 39 women) aged over 16. In the analysis of the results obtained by the test a “marked female superiority” was salient (p. 52) in the “Cancellation Test” since women scored higher marks in items “Accuracy” and “Efficiency” and lower results in application time marks. As to the interpretation of individual results, Brasilia reported difficulties in taking a position when confronted with several different opinions on the meaning of the results for the “Cancellation Test.” Moreover, she pointed out the interference of visual and motor variables, which hindered the assessment of attention. However, despite all these problems, she concluded that the test was able to measure the voluntary attention mainly due to its length, because it is “long and tedious, requires volunteer effort to maintain focused attention on the perception of signs and determination to bar them” (p. 60).

Brasilia Leme Lopes is a typical case of a young woman who occupied a position in a male environment, with older men recognized in their fields, but even so, she was not able to realize the power associations that underlie gender relations. From this perspective, she simply mentions the best result in Women’s Cancell-

tion Test, and consider them “long and tedious” without correlating these two facts to the women’s preparation to routine tasks (Belotti, 1985). Likewise, when she listed in her Article in 1929 the “great men” who had worked with Brazilian tests until then, she stated, “the President of the Brazilian League of Mental Hygiene Dr. Ernani Lopes adapted to our language the review made by Terman-Stanford, working carefully to give us the most perfect translation. That is the scale, to be published shortly, that we, at the Brazilian League of Mental Hygiene have submitted a small group of children.” (Leme Lopes, 1929, pp. 70 –71). To him, the intellectual work, to her, the routine, back-breaking activity.

### Didactic Support for Testing

Many professors continue to believe that there is nothing like direct contact between the teacher and the students. [ . . . ] There is a certain presumption in this with such professors. They give themselves a diploma in psychological sagacity, which is an unconfirmed practice. [ . . . ] Every time tests are undertaken in large classes, it turns out that there are students misclassified by the teachers, who regarded them as more ignorant than they prove to be. Anyway, it is necessary to be able to reveal (our knowledge with regard to the problems that life poses us) anyway. The *test* is one of these modes: it is good, clear, simple, direct (Medeiros e Albuquerque, 1924, p. 163).

Only one year after the foundation of the League, in 1924, the Brazilian Association of Education (ABE) was founded. It addressed social problems by inducing changes in education. In both movements, League and ABE, psychological testing would increasingly appear as a very helpful instrument in the project of “civilizing the nation,” by means of introducing Brazil to the lifestyle of occidental civilization (Carvalho, 1994; Schwarcz, 1993). As Campos, Assis, and Lourenço (2002) stated, we are dealing with an initiative led by a generation of dedicated intellectuals, who tried to “reinvent the nation, organize it upon new foundations and make it quickly overcome the enormous archaic obstacles that separated it from contemporary civilization” (p. 24). The issue here is to know the “abnormal,” those who happen to be degenerated, in Morel’s sense. They are supposed to represent an obstacle for the development of the country toward a civilized nation, with progress as a goal, in the evolutionist spirit.

In the same year (1924), there is the publication of a book entitled *The Tests*, authored by Medeiros e Albuquerque.<sup>6</sup> The author introduces the concept of “tests,” its purpose, and the importance of its standardization. His work is a didactic support presenting the various types of tests in commerce and industry. Moreover, he describes the history of the tests, explains how to use them, cites the main ones, and gives examples. He also discusses about intelligence, raising the question about how to measure what is unknown.

It is not sure that test applications had been made previously but it is clear that Brazilian teachers were familiar with several versions of the Binet-Simon test. Nevertheless, the book by Medeiros e Albuquerque facilitated the dissemination of mental tests, introducing the method in places where it was still unknown, like Bahia, where Isaías Alves was grateful for the knowledge and bibliography offered in the book (Alves, 1930).

Also, as a consequence of Medeiros and Albuquerque’s book, Manoel Bomfim, mentioned in his book *The Method of Tests* (1928) that the Counsel for Municipal Instruction had named, in September 1924, a commission to “study the possibilities of *tests* at elementary school level” (Bomfim, 1928, p. 5). This commission concluded that the most adequate way to use the tests would be to prepare some elementary school teachers to use them in their classes. Nevertheless, psychological tests appeared in a short first chapter of his book, which is mainly dedicated to explaining testing methodology for the purpose of preparing teachers to use this new methodology for pedagogical evaluation. Everything indicates that, in those days, the use of psychological tests was restricted to a didactic use by teachers and students at the Teacher’s School (Leme Lopes & Fialho, 1929).

Although since the 1920s there had already been interaction among educators seeking a

<sup>6</sup> José Joaquim de Campos da Costa Medeiros e Albuquerque (1867–1934) was a journalist, professor, politician, literate, essayist, and memorialist. He actively participated in the republican movement and wrote the lyrics of the Proclamation of the Republic Anthem. He was a Federal Representative in various legislatures. He was one of the founders of the Brazilian Academy of Letters (seat 22). Interested in psychology, he also wrote “Hypnotism,” in 1926 (Jacó-Vilela, 2001).

transformation of education in Brazil, only in 1932 the proponents of the “New School” launched their Manifest. Headed by Fernando Azevedo, the Manifest was also signed by others professionals that would later become highly renowned in the psychology field.<sup>7</sup>

These scholars demanded laic, free, and obligatory education as public undertaking and social activity. But the Manifesto’s main proposal was to lay a foundation for the use of mental tests stating that education must cease to be a privilege resulting from the individual’s socioeconomic situation. They declared: We must recognize each person’s right to receive education “as far as his natural skills will permit” (Azevedo et al., 1932). The creation of homogeneous classes became the standard model for education and paved the way to the systematic use of psychological testing in schools to assess those “natural skills.” It must be clear, however, that the Manifesto only con-

solidates principles that become hegemonic in the following decades. The proposals were already present, so that, as we saw on testing performed by the League, they aimed to build homogeneous classes (Leme Lopes; Fialho, 1929). So, with the 1930 Revolution and Getúlio Vargas’s rise to power that which was a group of intellectuals’ project in previous decades became a Brazilian State policy.<sup>8</sup> The emphasis on education and understanding the child as “tomorrow’s man” (Silva, 1997), believing that an educated population will be the means to place the country among civilized nations, are marks of Getúlio Vargas’ governmental speech. The maintainors of the New School (Fernando Azevedo, Anísio Teixeira, and Lourenço Filho) take distinct offices in his administration, while the formerly hegemonic Catholic Church had used his contacts in the elites to maintain its presence in education.<sup>9</sup>

### Isaías Alves and Individual Intelligence

The intensive use of tests occurred, for example, in Bahia, where Isaías Alves (1898 – 1968), who was trained in law but was dedicated to the teaching profession, became the main advocate of mental tests. Although Alves is not considered one of the characters of the New School, he was supported by Anísio Teixeira, one of the thinkers of that movement, and he used the psychological testing tools exclu-

sively in the education environment. So, we have decided to analyze his work as an exemplary case of the use of psychological measuring in the educational system in the years of 1920 and 1930. That decision was facilitated by the fact that Alves reported in his books and articles at a reasonable level of details the way he worked with different tests.

He related that, after reading Medeiros e Albuquerque’s book, he immediately bought the books that were cited in the bibliography (Alves, 1930). He began his work with tests at the Ipiranga High School (in the state of Bahia), which belonged to him. But instead of using the Binet-Stanford version, he used the Binet-Simon-Burt scale. So, in his book “The Individual Intelligence Test” published in 1926, he even included the translation of the Binet-Simon-Burt scale—the use of which he justified

<sup>7</sup> Fernando de Azevedo (1894 –1974) was Director General of Public Instruction of the Federal District (1926 – 1930). After that date, he only held positions in the government of São Paulo, and at the University of São Paulo (always related to education and culture). He founded publishing companies aimed at issuing scientific work and disseminating Brazilian ideas.

<sup>8</sup> Getúlio Dornelles Vargas (1882–1954) has without doubt been the most famous Brazilian politician to this date. After the 1930 Revolution, he was Head of the Provisional Government (1930 –1934), elected President by the National Congress (1934 –1937), instituted President by the 1937 Fascist Constitution imposed by the New State, which closed Congress and set up a dictatorship. His rule was characterized by centralization, repression, control, and populism. While he destroyed communism and integral nationalism, his political opponents, he co-opted workers by establishing the Labor Ministry (linked to the State) and granting many other labor rights. He also invested in infrastructure, allowing what was called “import replacement.” He left the government in 1945 because of military, political, and popular pressure, after the Brazilian participation in World War II when the soldiers fought for the sake of democracy. He returned to power in 1951 through democratic elections, with nationalist policies more strongly oriented to industrialization. Opponents, however, remained present, and Vargas, facing the possibility of being forced to resignation, committed suicide in 1954.

<sup>9</sup> Anísio Teixeira Spinola (1900 –1971) obtained his Master of Arts in Teacher’s College at Columbia University. He was one of the signatories of the Manifesto of the New Education Pioneers and worked in Vargas Government until 1937. He planned the University of Brasília and was its first president. He was compulsorily retired by the 1964 military coup. He died in unclear circumstances in 1971, presumably having fallen into the pit of the elevator in the building where he was going to visit a friend in his apartment. His death is being investigated by the Truth Commission established by the current President’s administration.



for being the shortest and the most simple to use. Moreover, Alves invited Bahian teachers to test their students and send him the results, a creative strategy to bypass the lack of investment in research in Brazil in that period.

Alves standardized Ballard's collective test,<sup>10</sup> which he describes in his book *Tests and Scholastic Reorganization* (1930). This book explains very well the use of mental measurement in schools and it is prefaced by Anísio Teixeira.<sup>10</sup> In it, Teixeira (1930) presents the advantages of measurement: greater objectivity in evaluating the progress of the students, viability of a more individualized education, identification of specific difficulties of the student, and comparison of efficiency of different pedagogical styles. Nonetheless, he did not bypass the exposition of the risks that arise from an exaggerated or distorted use of the tests. He warned his readers not to forget that the average was nothing more than the norm. The primary function of the test is the diagnosis. Demonstrating the pragmatic spirit of the New School, Teixeira concluded his preface stating that:

Those who are afraid to measure, because this means lowering the beauty of poetry of life, I have nothing to say. However, courage, heroism or sacrificing spirit will neither lose its ability nor its beauty the day we will be able to trace the organic genesis and measure the exact degree of its efficiency, in the same way that the flower will not lose its charm through botanic development. The tests must not be judged by their limitations, but by their use. (Teixeira, 1930, XV–XVI)

Alves (1930) explains the value not only of diagnosis but also of prognosis of the Binet-Simon test. It not only helps the school to decide about the present but indicates what the student can accomplish in the future. It becomes possible to make a prediction “as to the child's future” (Alves, 1930, p. 31). But he is already conscious of the interaction with the social situation. He adds that for a child with a low average intelligence (like an IQ of 85) “his scientific or social situation will be even lower, if money or protection is not able to give him a position that he will never know how to honor” (Alves, 1930, p. 36).

Alves even extends the applicability of testing from the field of education to delinquency:

The Binet-Simon test renders a valuable service to the study of delinquents, juveniles, who need special treatment. [...] An 11-year-old delinquent with an IQ over 90 indicates a sure possibility of recovery, if placed in

a pure and perfectly disciplined environment, [...] but if placed together with other delinquents with IQs of 40–70, there is a high probability of aggravating his moral disorganization, especially of becoming a leader of the imbeciles and the cretins that make up a large part of the criminal world. (Alves, 1930, p. 38–39)

Alves was a scientist that accompanies the biology-oriented racist ideas of his days that we presented previously. Only in 1933, with the new appreciation of miscegenation as presented by Gilberto Freyre's seminal book, *Casa Grande and Senzala* (Big House and Slaves), would those ideas start losing their biology-oriented tone to take up a cultural trend. So, the negative perspective of color/race is present in analyses Alves made, as we shall see in the following example.

Alves studied with Edward L. Thorndike from June 1930 to May 1931 in the United States, when he obtained his degree as Master of Arts and as Instructor in Psychology from the Teachers College at Columbia University. In his research report of those years, related in his book *Education in United States: Report of the work study trip* (1933b), he also commented on the results he had previously achieved in his testing in Bahia. In 1928, he was responsible for the testing service in public schools in Salvador (Bahia). He also tested the students of his own school, the Ipiranga School. He explained that he had divided the students into three categories (Negro, Mestizo, and White). His results had shown a low performance in the tests of students considered to be Negroes (66.1), while the best performance were the ones by the White students (86.6). Mestizos displayed an average performance (73.6). Alves (1933a) also verified that the average IQ of the white students increased when the scores of students from private schools were added to those of the public schools (this was the case for the Ipiranga High School). But in his analyses, Alves did not make clear the public schools received children from the poorest families, and, as a consequence, the students were more often Negroes and Mestizos. That factor cannot be neglected in results and comparisons. On the other hand, we can

<sup>10</sup> Test created by Ballard in England, considered very economical to use because it involved only sheets of paper and pencil and could be applied collectively. It was used in Barcelona by Mira and Lopez and adapted to Argentina by Croome, Iglesias y Forgiore (Székely, 1966).

consider that, although his analysis refers to the students' intelligence level (and their skills for school learning), the race-oriented trend of his analysis placed him close to the assessment of results of time reaction measures carried by the physician Henrique Roxo, in his comparison of mentally ill people with different diagnoses.

In relation to this point, however, Alves did not innovate but repeated Roxo's classification. The latter, a physician, had proved in his doctoral thesis that the reaction time (RT) of the interned in the National Hospital of Alienated was longer for the alienated Negroes than that for Whites (Roxo, 1900)—a result that was interpreted as one more confirmation of the Brazilian elite thesis about the inferiority of the Negroes.

Alves's experience with the tests was linked closely to his regular trips to the United States and his studies at the Teacher's College. The reports of his trips that appear in his book (Alves, 1933b) are very detailed and help us to understand his preference for collective testing. When Teixeira was Director of Public Education in the Federal District, he appointed Alves as director of the Testing Services and School Measurements of the Federal District (1932–1935). Then, with the help of collective testing, Alves conducted a large-scale research on intelligence and instruction level, measured at Rio de Janeiro's public schools. The results were tragic. With results indicating mental retardation in 50% of the students (Alves, 1932), the research was aborted. Isaías Alves recognized that the teachers had not been sufficiently trained to use the tests correctly (Pintner-Cunningham and ABC tests,<sup>11</sup> both tests are aimed at illiterates or children that are not yet literate), and the Binet-Simon test applied to literate children had not yet been adapted. Despite this fact, he considered the results valid, including the superiority of Whites toward the Negroes regarding the level of intelligence and the children in private schools compared with the ones of public schools. Thus, he concluded that these data induce “thoughts which lead sociologists, educators and eugenicists to direct more firmly our policy and economy” (Alves, 1933b, p. 70).

We are dealing here with a process of naturalization of social differences, which moreover, was completely against the project of the New School, who wanted to include an increas-

ing number of children into the school system. Thus, the differences between Anísio Teixeira and Isaías Alves led to the removal of the latter and forced his return to Bahia.

In the traditional historiography of psychology in Brazil, Alves is presented only as one of the important scholars and promoters of the use of tests in the country. This fact attracts our attention because of the colonized evaluation of his actions. However, a new evaluation of his work has been carried out by historians (Rocha, 2011).

### Some Final Considerations

In this investigation, we have seen how pre-eminent the aim of preventing was in the 1920s and 1930s, when it was characteristic for the Hygiene League and the New School movement. The presence of tests in the two movements was not peculiar to Brazil alone, but a tendency also present in other countries. What we suppose to be specific to Brazil is, first, the late onset of the testing, in the mid-1920s.

As a hypothesis, we assume that this difference in relation to other countries is mainly because of the delay in the democratization in the access to schooling in the country. Undoubtedly, the movement of educators broke with this tradition, although until now universal basic education is still missing in Brazil.

The other aspect, not so specific in Brazil because it has also been mentioned in the literature about the use of tests in other countries, since the early work carried out by Yerkes, Goddard and Terman (the Arm Test) with the American Army soldiers (Gould, 1933) is the steady lower result of Negroes in relation to

<sup>11</sup> Test created by Brazilian Manoel B. Lourenço Filho (1897–1970) in 1928. See its 13th edition (Lourenço Filho, 2008). He was Director of Public Education in the Brazilian State of Ceará in 1922. He was a Psychology Professor, author of one of the most divulged books about the New School, in which he presents psychology as one of the “basis for Education” (1930, “Introdução to the study of the New School”). He was one of the signatories of the Manifesto of the New Education Pioneers. He occupied several positions in Vargas Government—Head of the Minister of Education and Health's Office in 1931, general director of the National Department of Education in 1937, director of the National Institute of Pedagogical Studies (1938–1946) remaining in the government even during the dictatorial period, which had removed the others actores of New School.

Whites. Although this type of result has already been contested in the literature, sharp criticism against positivism, against a “universal” psychology, and consequently against the use of psychological tests in Brazil in the 1980s and 1990s, has not allowed a revision of its results in country.

In sum, we believe that, in spite of intrinsic points regarding its reception, development, and current situation, the experience with psychological tests in Brazil must be studied at its very specificities. Therefore, the next investigation on this issue is committed to carry out research about the ABC test created by Lourenço Filho in 1928, conceived to evaluate the intelligence of illiterate populations; the solution found by Ulisses Pernambucano, interested in the Rorschach’s text; and the difficulties to import the test. Pernambucano solved this difficulty following the instructions given by Rorschach of how to obtain psychodiagnostic tables: letting some drops of paint fall onto the center of a sheet of paper and immediately folding it in such a way that the paint spreads out across the two surfaces); the Test My Hands created by Helena Antipoff in 1943, aiming at evaluation those who knew how to read and write but whose activities, centered in the rural area, was chiefly manual.<sup>12</sup>

<sup>12</sup> Helena Antipoff (1892–1974), Russian by birth, studied with Binet and Simon in Paris and Claparède in Geneva. She came to Brazil in the great movement of educational reform in Minas Gerais in the 1920s to head the Psychology Laboratory of the School Improvement Teacher. Settling in Brazil, she was devoted to educational psychology and the exceptional child. She created the My Hands test in 1943.

## References

- Aguiar, R. C. (2000). *O rebelde esquecido: Tempo, vida e obra de Manoel Bomfim* [The forgotten Rebel: Time, life and work by Manoel Bomfim]. Rio de Janeiro, Brazil: Topbooks.
- Alonso, A. (2002). *Idéias em movimento: A geração de 1870 na crise do Brasil Império* [Ideas in movement: The 1870 generation in the Brazilian Empire Crisis]. São Paulo, Brazil: Paz e Terra.
- Alves, I. (1930). *Os testes e a reorganização escolar* [Tests and school reorganization]. Rio de Janeiro, Brazil: Livraria Francisco Alves.
- Alves, I. (1932). Os testes no Distrito Federal [Tests within the Federal District]. *Boletim de Educação Pública*, 2, 1–2.
- Alves, I. (1933a). *Da educação nos Estados Unidos: Relatório de uma viagem de estudo* [Education in United States: Report of the work study trip]. Rio de Janeiro, Brazil: Imprensa Nacional.
- Alves, I. (1933b). *Os testes de inteligência nas escolas*. [Intelligence tests in schools] Rio de Janeiro, Brazil: Diretoria Geral de Instrução Pública.
- Azevedo, C. M. M. (1987). *Black wave, white fear: Blacks in the imagination of the nineteenth century elites*. Rio de Janeiro, Brazil: Paz e Terra.
- Azevedo, F., Peixoto, A., Doria, A. S., Teixeira, A. S., Lourenço Filho, M. B., Pinto, R.,... Gomes, R. (1932). *Manifesto dos Pioneiros da Educação Nova* [Manifesto of new education pioneers]. Retrieved from [www.pedagogiaemfoco.pro.br/heb07a.htm](http://www.pedagogiaemfoco.pro.br/heb07a.htm)
- Bastide, R. (1974). *As Américas Negras* [The Black Americas]. São Paulo, Brazil: Difel/EdUSP. (Original work published 1967)
- Belotti, E. (1985). *Educar para a submissão* [Educate for submission]. Petrópolis, Brazil: Vozes.
- Boarini, M. L. (Ed.). (2003). *Higiene e raça como projetos: Higiene e eugenismo no Brasil* [Hygiene and race as projects: Hygiene and eugenism in Brazil]. Maringá, Brazil: EdUEM.
- Boarini, M. L. (2012). *Higiene Mental. Idéias que atravessaram o século XX* [Mental hygiene: Ideas that went through the 20th century]. Maringá, Brazil: EdUEM.
- Boarini, M. L., & Borges, R. F. (2009). *Hiperatividade, Higiene Mental, psicotrópicos: Enigmas da caixa de Pandora* [Hyperactivity, mental hygiene, psychotropics: Pandora Box enigmas]. Maringá, Brazil: EdUEM.
- Bomfim, M. (1928). *O methodo dos tests* [The method of tests]. Rio de Janeiro, Brazil: N.p.
- Bomfim, M. (1993). *América Latina: Males de origem* [Latin America: Evils of origin] Rio de Janeiro, Brazil: Top Books. (Original work published 1905)
- Botelho, A., & Scwarcz, L. M. (org.) (2010). *Um enigma chamado Brasil: 29 intérpretes e um país* [An enigma called Brazil: 29 interpreters and one country]. São Paulo, Brazil: Companhia das Letras.
- Câmara Cascudo, L. (1972). *Seleção* [Selected work]. Rio de Janeiro, Brazil: Ed. José Olympio.
- Campos, R. H. F., Assis, R. M., & Lourenço, E. (2002). Lourenço Filho, a Escola Nova e a Psicologia. In M. B. Lourenço Filho (Ed.), *Introdução ao Estudo da Escola Nova* [Introduction to the study of New School] (14th ed., pp. 15–53). Rio de Janeiro, Brazil: EdUERJ/CFP.
- Carvalho, A. M. T. (1999). Trabalho e higiene mental: Processo de produção discursiva do campo no Brasil [Labor and mental hygienics: Process of discourse production in the field in Brazil]. *História, Ciências, Saúde – Manguinhos*, 6, 133–156. doi:10.1590/S0104-59701999000200007

- Carvalho, M. A. R. (1994). *Quatro vezes cidade* [Four times a city]. Rio de Janeiro, Brazil: Sette Letras.
- Centofanti, R. (1982). Radecki e a Psicologia no Brasil [Radecki and Psychology in Brazil]. *Psicologia: Ciência e Profissão*, 3, 2–50. doi:10.1590/S1414-98931982000100001
- Fausto, B. (1995). *História do Brasil* [History of Brazil]. São Paulo, Brazil: Edusp/FDE.
- Fausto, B., & Devoto, F. (2004). *Brasil e Argentina: Um ensaio de história comparada (1850–2002)* [Brazil and Argentina: An essay on comparative history]. São Paulo, Brazil: Ed. 34.
- Freire, G. (2000). *Casa Grande & Senzala: Introdução a` história da sociedade patriarcal no Brasil*. [The Big House & Slave House: History of the patriarchal society in Brazil] (48th ed., p. 8). São Paulo, Brazil: Global Editora. (Original work published 1933)
- Frossard, N. C. (1930). Os tests de Binet em nossos escolares [Binet's tests in our students]. *Arquivos Brasileiros de Higiene Mental*, 3, 127–131.
- Gondra, J. G. (2004). *Artes de civilizar: medicina, higiene e educação escolar na Corte Imperial* [Civilizing arts: Medicine, hygienics and school education in the Brazilian Imperial Court]. Rio de Janeiro, Brazil: EdUERJ.
- Gould, S. J. (1999). *A falsa medida do homem* [The mismeasure of man]. São Paulo, Brazil: Martins Fontes. (Original work published 1981)
- Guimarães, A. P. (1981). *As classes perigosas: Banditismo urbano e rural*. [Dangerous classes: Urban and rural banditry]. Rio de Janeiro, Brazil: Graal.
- Jacó-Vilela, A. M. (2001). Medeiros e Albuquerque. In: Campos, R. H. F. (Ed.) *Dicionário Biográfico da Psicologia Brasileira - Pioneiros* [Biographical Dictionary of Brazilian Psychology - Pioneers]. *Rio de Janeiro: Imago* (pp. 227–228).
- Leite, D. M. (1976). *O caráter nacional brasileiro: História de uma ideologia* [Brazilian national character: History of an ideology]. São Paulo, Brazil: Pioneira. (Original work published 1954)
- Leme Lopes, M. B. (1930). Pesquisas sobre a memória de fixação [Research about memory fixation]. *Arquivos Brasileiros de Higiene Mental*, 3, 235–240.
- Leme Lopes, M. B. (1932). A atenção concentrada explorada pelo test de cancelamento [Concentrated attention explored by cancelling test]. *Arquivos Brasileiros de Higiene Mental*, 5, 41–63.
- Leme Lopes, M. B., & Fialho, I. A. (1929). Sugestões para o emprego dos tests [Suggestions for the application of the tests]. *Arquivos Brasileiros de Higiene Mental*, 2, 68–77.
- Lima, I. S. (2003). *Cores, marcas e falas: Sentidos da mestiçagem no Império do Brasil* [Colors, marks and speeches: Meaning of miscegenation in the Brazilian Empire]. Rio de Janeiro, Brazil: Arquivo Nacional (National Archives).
- Lopes, E. (1931). Subsídio para a adaptação brasileira dos tests de Binet-Terman [Subsidies for the Brazilian adaptation of Binet-Terman's tests]. *Arquivos Brasileiros de Higiene Mental*, 4, 180–207.
- Lourenço Filho, M. B. (2004a). *Introdução ao Estudo da Escola Nova* [Introdução to the study of the New School]. Rio de Janeiro, Brazil: EdUERJ. (Original work published 1930)
- Lourenço Filho, M. B. (2004b). A Psicologia no Brasil (1955). In M. A. M. Antunes (Ed.), *História da Psicologia no Brasil: Primeiros ensaios* [History of psychology in Brazil: First trials] (pp. 71–108). Rio de Janeiro, Brazil: EdUERJ/CFP. (Original work published 1955)
- Lourenço Filho, M. B. (2008). *Testes ABC: Para a verificação da maturidade necessária à aprendizagem da leitura e da escrita* [To check maturity necessary to learn how to read and write] (13th ed.). Brasília-DF: Brazil. (Original work published 1928)
- Magnoli, D. (2009). *Uma gota de sangue: História do pensamento racial* (A drop of blood: History of racial thinking). São Paulo, Brazil: Contexto.
- Massimi, M. (1990). *História da Psicologia Brasileira: da época colonial até 1934* [History of Brazilian Psychology: From colonial days to 1934]. São Paulo, Brazil: E. P. U.
- Massimi, M. (2006). Ideias psicológicas na cultura luso-brasileira do século XVI ao século XVIII [Psychological ideas in the Luso-Brazilian culture from the 16th to the 18th centuries]. In A. M. Jacó-Vilela, A. A. L. Ferreira, & F. T. Portugal (Eds.), *História da Psicologia: rumos e percursos* (pp. 75–83). Rio de Janeiro, Brazil: Nau Editora. Medeiros e Albuquerque, J. J. C. C. (1924). *Os tests* [The tests]. Rio de Janeiro, Brazil: Livraria Francisco Alves.
- Mota, L. D. (org.). (1999). *Introdução ao Brasil. Um banquete no trópico*. [Introduction to Brazil. A banquet in the tropics]. São Paulo, Brazil: Ed. Senac.
- Olinto, P. (2004). A Psicologia experimental no Brasil. In M. A. M. Antunes (Ed.), *História da Psicologia no Brasil: Primeiros ensaios* [History of Psychology in Brazil: First trials] (pp. 25–31). Rio de Janeiro, Brazil: EdUERJ/CFP. (Original work published 1944)
- Oliveira, F. F. (2008). *Alexandre de Gusmão: arte de educar meninos nos bons costumes*. Dissertação de Mestrado, Pós-Graduação em Educação, [Alexandre de Gusmão: art to educate children in good customs]. Master's thesis, Universidade Metodista de Piracicaba, Piracicaba, São Paulo.
- Orico, O. (1975). *Mitos ameríndios e crendices amazônicas* [Amerindian myths and Amazon be-



- liefs]. Rio de Janeiro, Brazil: Civilização Brasileira/MEC.
- Radecki, W. (1925). *Hygiene mental da criança, baseada sobre as leis da psychologia* [Children's mental hygiene, based on the laws of psychology]. *Archivos Brasileiros de Higiene Mental*, 1, 11–89.
- Raeders, G. (1996). *O Conde de Gobineau no Brasil* [Count of Gobineau in Brazil]. Rio de Janeiro, Brazil: Paz e Terra.
- Rocha, A. C. S. M. (2011). *O que fazer com os rudes? Isaías Alves e as divergências sobre o papel da inteligência na organização escolar (1930–1942)*. [What to do with the Rudes? Isaiiah Alves and the disagreements over the role of intelligence in school organization (1930–1942).] Master's thesis, Fundação Getúlio Vargas, Rio de Janeiro, Brazil.
- Rodrigues, R. N. O. (2006). *Animismo Fetichista dos Negros Baianos* [The Fetish-like Animism of Baiano Negros]. Rio de Janeiro, Brazil: National Library Foundation/UFRJ. (Original work published 1896).
- Romero, R. (1926). *Explicações indispensáveis, prefácio aos Vários Escritos de Tobias Barreto de Menezes* [Essential explanations, preface to Several Writing by Tobias Barreto de Menezes], In T. Barreto (Ed.), *Obras Completas* [Complete Works] (v. X, pp. XXVI). Sergipe, Brazil: S. e. (Original work published 1900)
- Rose, N. (1996). *Inventing ourselves*, Cambridge, United Kingdom: Cambridge University Press. doi:10.1017/CBO9780511752179
- Roxo, H. (1900). *Duração dos atos psíquicos elementares nos alienados* [Duration of basic psychic acts in alienated]. Doctoral Thesis in Medicine, Rio de Janeiro School of Medicine, Rio de Janeiro.
- Russo, J. A. (1997). Os três sujeitos da Psiquiatria [The three subjects of Psychiatry]. *Cadernos IPUB*, 8, 11–21.
- Schwarz, L. M. (1993). *O espetáculo das raças: Cientistas, instituições e questão racial no Brasil: 1870–1930* [The spectacle of races: Scientists, institutions and racial issues in Brazil: 1870–1930]. São Paulo, Brazil: Cia das Letras.
- Schwarz, R. (2000). *Ao vencedor as batatas*. [To the victor, the potatoes]. São Paulo, Brazil: Duas Cidades; Editora 34. (Original work published 1977)
- Serpa, Jr., O. D. (1998). *Mal-Estar na Natureza* [Discontent in nature] (1st ed.). Belo Horizonte, Brazil: Te Cora Editora.
- Silva, A. S. R. (1997). *A “criança brasileira,” futuro da nação: Infância, educação e higiene mental na Primeira República* [The “Brazilian child,” future of the nation: Childhood, education and mental hygiene in the First Republic] (Vol. 8, pp. 99–112). Rio de Janeiro, Brazil: Cadernos do IPUB.
- Székely, B. (1966). *Los Tests. Manual de Técnicas de Exploración Psicológica*. [The Tests. Handbook of psychological exploration Techniques] (Segunda Parte, 5th edition actualizada y ampliada). Buenos Aires, Argentina: Kapelusz. (Original work published 1946)
- Teixeira, A. (1930). Prefácio. In I. Alves (Ed.), *Os testes e a reorganização escolar* [Tests and school reorganization]. Rio de Janeiro, Brazil: Livraria Francisco Alves.
- Villas Boas, O., & Villas Boas, C. (1975). *Xingu. Os índios, seus mitos* [Xingu. Indians and their myths]. Rio de Janeiro, Brazil: Zahar Ed.

Received October 25, 2012

Revision received May 27, 2013

Accepted September 4, 2013 •